

PARAMETERS	HEALTH CANADA RECOMMENDATIONS (2020)	QUEBEC REGULATION DRINKING WATER QUALITY (Q-2,r.40)	DRINKING WATER		
			CONCENTRATION		
			MIN.	AVE.	MAX.
Physical Properties					
Conductivity (µS/cm) **	--	--	310	317	328
Color (T.C.U.) **	≤15 ¹	--	1,00	0,56	1,00
Agressivity Index **	--	--	11,5	12,4	12,7
Ryznar Index	--	--	8,2	9,1	9,4
Langelier's Saturation Index	--	--	-0,84	-0,60	-0,14
pH (units)	7,0-10,5 ¹	6,5 - 8,5	7,50	7,81	8,09
Solids (mg/l) **	≤500	--	146	150	154
Total Solids(mg/l) **	≤500	--	171	179	185
Temperature (°C) **	≤15	--	0,60	7,11	25,20
Turbidity (N.T.U.) ²			0,08	0,14	0,24
Turbidity (N.T.U.) ² - West Montreal	≤1,0	≤5	0,11	0,17	0,27
Turbidity (N.T.U.) ² - Royal-Mount			0,10	0,14	0,22
Biological Characteristics					
			ANNUAL AVERAGE		
Total coliforms (C.F.U./100ml)	>90% ABS ⁴	>90% ABS ⁴	99.9 % ABS ⁹		
E. coli (C.F.U./100ml)	ABS ⁴	<1 or ABS ⁴	100 % ABS ⁹		
West Montreal Network					
Total coliforms (C.F.U./100ml)	>90% ABS ⁴	>90% ABS ⁴	100 % ABS ⁸⁺⁹		
E. coli (C.F.U./100ml)	ABS ⁴	<1 or ABS ⁴	100 % ABS ⁸⁺⁹		
Royal-Mount Network					
Total coliforms (C.F.U./100ml)	>90% ABS ⁴	>90% ABS ⁴	99,3 % ABS ⁹		
E. coli (C.F.U./100ml)	ABS ⁴	<1 or ABS ⁴	100 % ABS ⁹		

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Inorganic and Organic Chemical Characteristics (mg/l)					
Antimony (Sb)	0.006	≤0.006	0,00014	0,00014	0,00014
Alkalinity (eq. CaCO ₃) **	--	--	82	93	95
Aluminum (Al) **	<0.1	--	0,00463	0,01000	0,01560
Silver (Ag) **	--	--	<0,00331	<0,00331	0,00005
Arsenic (As)	0.010	≤0.010	0,00078	0,00082	0,00086
Barium (Ba)	2	≤1.0	0,02160	0,02180	0,02200
Bore (B)	5	≤5.0	0,03	0,03	0,03
Bromated (BrO ₃) *	0.01	≤0.010	<0,006	<0,006	<0,006
Cadmium (Cd)	0,007	≤0.005	<0,00004	<0,00004	<0,00004
Calcium (Ca) **	--	--	31,30	32,45	33,20
Total Organic Carbon (TOC) **	--	--	1,39	1,83	2,26
Chlorides (Cl) **	≤250 ¹	--	24,74	26,30	28,08
Chromium (Cr)	0.05	≤0.050	0,00006	0,00007	0,00007
Cobalt (Co) **	--	--	0,00002	0,00002	0,00013
Copper (Cu) ⁷	2 1.0 ¹	≤1.0	0,07590	0,09195	0,10800
Cyanides (CN)	0.2	≤0.20	<0,005	<0,005	<0,005
Total Hardness (eq. CaCO ₃) **	--	--	112	117	122
Iron (Fe) **	≤0.3 ¹	--	0,00	0,01	0,02
Fluorides (F)	1.5	≤1.50	0,11	0,11	0,11
Magnesium (Mg) **	--	--	7,68	8,22	9,00
Manganese (Mn) **	0.12 ≤0.02 ¹	--	<0,00017	<0,00017	0,00048
Mercury (Hg)	0.001	≤0.001	<0,00003	<0,00003	<0,00003
Nickel (Ni) **	--	--	0,00042	0,00072	0,00620
Nitrites (NO ₂ -N) + nitrates (NO ₃ -N)	1 +10	≤10.0	0,18	0,26	0,34
Lead (Pb) ⁷	0.005	≤0.010	0,00019	0,00059	0,00100
Potassium (K) **	--	--	1,43	1,49	1,56
Selenium (Se)	0.05	≤0.010	<0,00021	<0,00021	<0,00021
Silica (SiO ₂) **	--	--	0,66	0,95	1,30
Sodium (Na) **	≤200 ¹	--	14,30	15,00	15,60
Sulfates (SO ₄) **	≤500 ¹	--	20,61	22,49	23,28
Uranium (U)	0.02	≤0.020	0,00029	0,00029	0,00029
Zinc (Zn) **	≤5.0 ¹	--	0,00032	0,00095	0,00270

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				MAXIMUM DETECTED (µg/L)
Carbamates				
Bendiocarb *	-	27	0,1	N.D.
Carbaryl *	90	70	0,2	0,00
Carbofuran *	90	70	0,1	0,00
Volatile Organic Compounds (VOC)				
1,1,1,2-Tétrachloroethane	-	-	0,06	N.D.
1,1,1-Trichloroethane	-	-	0,06	N.D.
1,1,2,2-Tétrachloroethane	-	-	0,06	N.D.
1,1,2-Trichloroethane	-	-	0,06	N.D.
1,1-Dichloroethane	-	-	0,06	N.D.
1,1-Dichloroethylene	14	10	0,06	N.D.
1,1-Dichloropropene	-	-	0,06	N.D.
1,2,3-Trichlorobenzene	-	-	0,06	N.D.
1,2,3-Trichloropropane	-	-	0,06	N.D.
1,2,4-Trichlorobenzene	-	-	0,06	N.D.
1,2,4-Triméthylbenzene	-	-	0,06	N.D.
1,2-Dibromo-3-chloropropane	-	-	0,06	N.D.
1,2-Dibromoethane	-	-	0,06	N.D.
1,2-Dichlorobenzene	200	150	0,06	N.D.
1,2-Dichloroethane	5	5	0,06	N.D.
1,2-Dichloropropane	-	-	0,06	N.D.
1,3,5-Triméthylbenzene	-	-	0,06	N.D.
1,3-Dichlorobenzene	-	-	0,06	N.D.
1,3-Dichloropropane	-	-	0,06	N.D.
1,4-Dichlorobenzene	5	5	0,06	N.D.
2,2-Dichloropropane	-	-	0,06	N.D.
2-Chlorotoluene	-	-	0,06	N.D.
4-Chlorotoluene	-	-	0,06	N.D.
4-Isopropyltoluene	-	-	0,06	N.D.
Benzene	5	0,5	0,06	N.D.
Bromobenzene	-	-	0,06	N.D.
Bromochloromethane	-	-	0,06	N.D.
Bromoform				0,60
Bromoform - West Montreal	-	Voir note 3	See Note 3	0,70
Bromoform - Royal-Mount				0,60
Bromodichloromethane				13,90
Bromodichloromethane - West Montreal	-	Voir note 3	See Note 3	13,30
Bromodichloromethane - Royal-Mount				11,30
Bromomethane	-	-	0,06	N.D.

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	MAXIMUM DETECTED (µg/L)				
Volatile Organic Compounds (VOC)					
Chlorobenzene	80	30 ¹	60	0,06	N.D.
Chlorodibromomethane					5,80
Chlorodibromomethane - West Montreal	-		Voir note 3	0,06	6,60
Chlorodibromomethane - Royal-Mount					6,00
Chloroethane	-		-	0,06	N.D.
Chloroform					80,70
Chloroform - West Montreal	-		Voir note 3	0,06	28,60
Chloroform - Royal-Mount					25,50
Chloromethane	-		-	0,06	N.D.
Vinyl chloride	2		2	0,06	N.D.
cis-1,2-Dichloroethylene	-		-	0,06	N.D.
cis-1,3-Dichloropropene	-		-	0,06	N.D.
Dibromomethane	-		-	0,06	N.D.
Dichlorodifluoromethane	-		-	0,06	N.D.
Dichloromethane	50		50	0,06	N.D.
Diethylether	-		-	0,06	N.D.
Carbon disulfide	-		-	0,06	N.D.
Ethylbenzene	140	1,6 ¹	-	0,06	N.D.
Hexachlorobutadiene	-		-	0,06	N.D.
Isopropylbenzene	-		-	0,06	N.D.
MTBE(methyl tert-butyl ether)	-	15 ¹	-	0,06	N.D.
m-Xylene + p-Xylene + o-Xylene	90	20 ¹	-	0,06	N.D.
Naphthalene	-		-	0,06	N.D.
n-Butylbenzene	-		-	0,06	N.D.
n-Propylbenzene	-		-	0,06	N.D.
sec-Butylbenzene	-		-	0,06	N.D.
Styrene	-		-	0,06	N.D.
tert-Butylbenzene	-		-	0,06	N.D.
Tetrachloroethylene	10		25	0,06	N.D.
Carbon tetrachloride	2		5	0,06	N.D.
Toluene	60	24 ¹	-	0,06	N.D.
trans-1,2-Dichloroethylene	-		-	0,06	N.D.
trans-1,3-Dichloropropene	-		-	0,06	N.D.
Trichloroethylene	5		5	0,06	N.D.
Trichlorofluoromethane	-		-	0,06	N.D.
Trihalomethanes (THM) (total) ⁶					87,90
Trihalomethanes (THM) (total) ⁶ - West Montreal	-		Voir note 3	0,24	46,50
Trihalomethanes (THM) (total) ⁶ - Royal-Mount					39,80

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	Volatile Organic Compounds (VOC)				
Trihalomethanes total – Annual mean concentration					62,73
Trihalomethanes total-West Montreal– Annual mean concentration	100		80 ³	0,24	40,28
Trihalomethanes total - Royal-Mount – Annual mean concentration					37,45
Phenolic Compounds					
2,3,4,6-Tetrachlorophenol *	100	1 ¹	70	0,5	N.D.
2,4 -Dichlorophenol *	900	0,3 ¹	700	0,5	N.D.
2,4,6-Trichlorophenol *	5	2 ¹	5	0,5	N.D.
Pentachlorophenol *	60	30 ¹	42	0,5	N.D.
Glyphosate					
Glyphosate *	280		210	10	N.D.
Polycyclic Aromatic Hydrocarbons (PAH)					
Benzo(a)pyrene *	0,04		0,01	0,002	N.D.
Triazine Herbicides					
Atrazine and metabolites *	5		3,5	0,1	N.D.
Cyanazine *	-		9	0,1	N.D.
Metribuzine *	80		60	0,1	N.D.
Simazine *	10		9	0,1	N.D.
Chlorophenoxy Acid and Trichloroacetate Pesticides					
2,4-D *	100		70	0,1	N.D.
Dicamba *	120		85	0,1	N.D.
Dinoseb *	-		7	0,1	N.D.
Picloram *	190		140	0,1	N.D.
Organochlorine Pesticides					
Metolachlor *	50		35	0,1	N.D.
Methoxychlor *	-		700	0,05	N.D.
Trifluralin *	45		35	0,1	N.D.
Organophosphorus Pesticides					
Azinphos-methyl *	20		17	0,1	N.D.
Chlorpyrifos *	90		70	0,05	N.D.
Diazinon *	20		14	0,1	N.D.
Dimethoate *	20		14	0,1	N.D.
Diuron *	150		110	0,5	N.D.
Malathion *	190		140	0,1	N.D.
Parathion *	-		35	0,1	N.D.
Phorate *	2		1,4	0,1	N.D.
Terbufos *	1		0,5	0,1	N.D.
Others					
Bromoxynil *	5		3,5	0,1	N.D.
Methyl-Diclofop *	9		7	0,1	N.D.
Diquat *	70		50	1	N.D.
Paraquat *	10		7	1	N.D.
Haloacetic acids *	80		60	3	21,50
Nitritotriacetic acid	400		280	25	N.D.

- *: Analyzed by an outside accredited laboratory.
- ** : At the exit of water treatment plant.
- RDL: Reported Detection Limit.
- N.D.: Not detected, lower than the detection limit method.
- D.: Detected, but cannot determine quantity.

Notes:

- 1: Esthetical or organoleptic reasons.
- 2: Turbidity must be equal or under 5 NTU (nephelometric turbidity units).
- 3: The annual mean concentration of total THM (chloroform, bromodichloromethane, chlorodibromomethane and bromoform) calculated over four consecutive quarters must not exceed 80 µg/L (samples taken at the end of drinking water distribution network).
- 4: ABS = Absence. PRE= presence
- 5: Health reasons objectives.
- 6: Maximum obtained for a sampling site.
- 7: Lead and copper level at the center of water distribution network. When water samples are taken from old pipes (before 1970) results are shown below.

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				MIN.	AVE.	MAX.
Copper and Lead (mg/l)						
<i>Montreal Network</i>						
Copper (Cu)	2	1.0 ¹	≤1.0	0,00419	0,09646	0,22900
Lead (Pb)	0.005		≤0.010	0,00054	0,00729	0,06477
<i>West Montreal Network</i>						
Copper (Cu)	2	1.0 ¹	≤1.0			
Lead (Pb)	0.005		≤0.010			
<i>Royal-Mount Network</i>						
Cuivre (Cu)	2	1.0 ¹	≤1.0	0,06850	0,08684	0,10500
Plomb (Pb)	0.005		≤0.010	0,00014	0,00034	0,00057

- 8: When less than 21 water samples are taken over a period of 30 consecutive days, only one of these samples may have presence of total coliforms. It have been respected in 2020.
- 9: There is no requirement for annual average. It is used only as a reference. For all year long, monthly average have been respected